

# PATENT SPECIFICATION

Application Date: June 24, 1930. No. 19,167/30.

364,528

Complete Left: April 24, 1931.

Complete Accepted: Dec. 24, 1931.



PROVISIONAL SPECIFICATION **BEST AVAILABLE COPY**

## Improvements in Plugs or Stoppers for Bottles and other Vessels.

I, HENRY EWART WADSWORTH, of 15, Brook Road, Fallowfield, Manchester, in the County of Lancaster, a British Subject, do hereby declare the nature of this invention to be as follows:—

This invention relates to plugs or stoppers for bottles or other vessels and its principal object is to facilitate the secure and safe closing and easy opening of bottles or other vessels and the easy withdrawal of approximately accurately measured quantities of their contents and so to facilitate the dispensing or use of measured quantities of liquids, powders, granules or crystals, as for example in mixing strong or concentrated liquids or liquors with diluents, the application of disinfectants and other applications of measured quantities of liquids, powders, granules and crystals, to obviate soiling or infection of plugs or stoppers, to facilitate cleansing or sterilization thereof and to minimise the risk of plugs or stoppers removed from bottles or vessels causing damage by being laid down carelessly when removed from bottles or other vessels.

The invention consists in a plug or stopper which presents a plug part for application in the orifice of a bottle or other vessel and to extend some distance out therefrom so as to be capable of further insertion should it become compressed or elongated in use and presents beyond that plug part an obliquely extending circumferential flange flexible or resilient and of indiarubber or other material flexible and extensible or contractile or simply flexible or of material rigid or more or less rigid in case of extensibility or flexibility being unnecessary, capable of being made to surround the neck of a bottle or other vessel without being strained or so strained as to be permanently deformed in application of the plug or stopper to a bottle or other vessel and either always in or movable into position to surround space enclosing the whole of the plug part and extending beyond the end thereof and available as a measuring vessel or as a receptacle for a definite quantity or portion of liquid, powder, granules or crystals or as a vessel.

[Price 1/-]

for example an eye-bath, for applying liquid, powder, granules or crystals for any purpose and presents in the direction away from the plug part a handle part enabling it to be pressed into or withdrawn from a bottle or other vessel without the strain of insertion or withdrawal of the plug part being transmitted through the circumferential flange.

The invention consists further in a plug or stopper presenting a plug part, a handle part and circumferential flange as aforesaid in which the circumferential flange is so contrived or formed that the cavity within it is of such depth that the minimum quantity intended to be measured thereby shall occupy the interior space to a height or depth greater than the extent of the plug or stopper part in any conditions of extension or distortion in which the flange may be presented in or by use so that variation of capacity of the cavity shall be obviated wholly or substantially.

The invention consists further in a stopper or plug of any of the forms aforesaid in which the circumferential flange is contrived with marks for example rings to provide easily read indications of the capacities of different extents or portions of the cavity within the flange so that different definite quantities either defined with reference to any appropriate standard or with reference to any specified purpose may be easily measured or the cavity or part of it filled in successive stages with liquid, powder, granules or crystals either the same or different as for example in the preparation of solutions or mixtures.

The invention consists still further in a plug or stopper of any of the forms aforesaid in which the handle portion extending beyond the circumferential flange is made of such length or projection as to serve as a supplementary plug part for insertion in the orifice of a bottle or other vessel.

This invention consists further in a stopper or plug of any of the forms aforesaid in which the inner or concave surface of the circumferential flange is formed as two or more successive frusta of conical

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364,528 COMPLETE SPECIFICATION

1 SHEET

[This Drawing is a reproduction of the Original on a reduced scale]

Fig. 1.

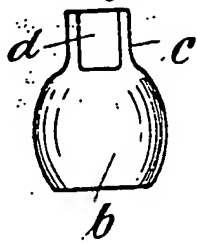


Fig. 3.

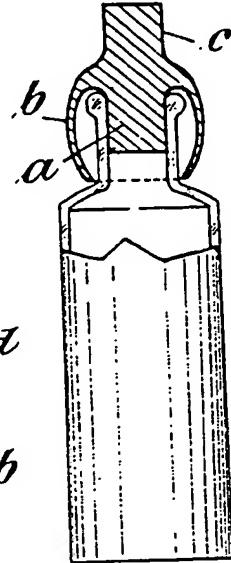


Fig. 6.

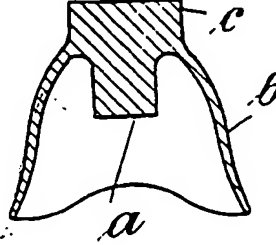


Fig. 4.

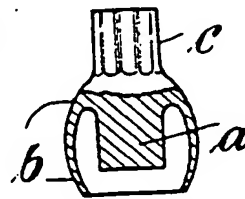


Fig. 2.

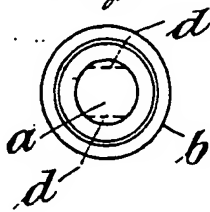


Fig. 7.

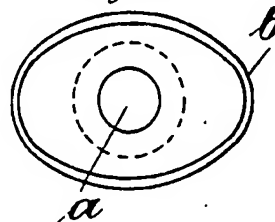


Fig. 5.



Fig. 8.

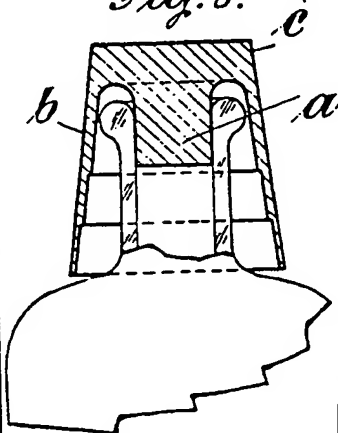


Fig. 9.

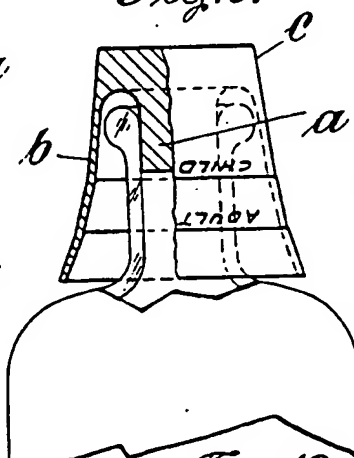


Fig. 10.

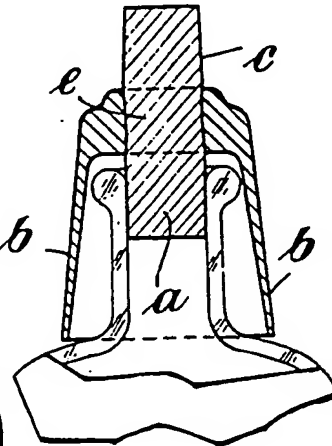


Fig. 11.

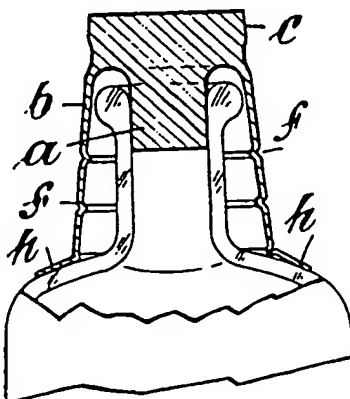


Fig. 12.

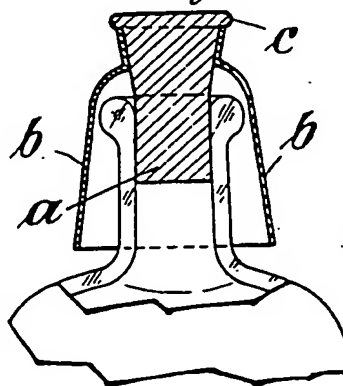


Fig. 13.

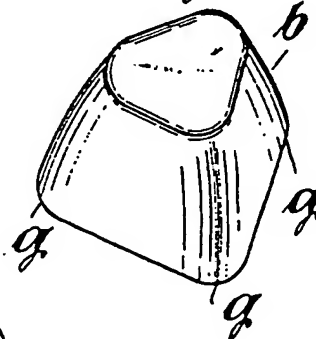


Fig 9  
is only  
relevant  
part. Only  
1st page of  
specification  
included.

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